

IN THE CLAIMS

Please amend the claims to read as indicated herein.

1. (currently amended) A noise canceling circuit, comprising:

a first source terminal;

a second source terminal;

an output terminal;

a reference voltage ~~generation means~~ generator for generating a reference voltage, having an input connected to said first source terminal, and an input connected to said second source terminal, and an output;

a bias current ~~generation means~~ generator for generating a bias current determining an operating current, having a first source input, a second source input, and an output;

~~an error amplifier means for amplifying an error voltage for said reference voltage, said error amplifier means containing at least one phase compensation capacitor;~~

a voltage-current ~~output means~~ generator for generating an output of a power circuit, having a first input connected to said first source terminal, a second input, and an output connected to said output terminal; and

~~an output voltage dividing means~~

a voltage divider for detecting a fluctuation of the an output voltage at the output terminal, having an input connected to said second source terminal, an input connected to said output terminal, and an output; and

an error amplifier for amplifying an error voltage between said reference voltage and an output voltage from said output of said voltage divider, having an input connected to said first source terminal, an input connected to said second source terminal, an input connected to said output of said reference voltage generator, an input connected to said output of said bias current generator, an input connected to said output of said voltage divider, and an output connected to said second input of said voltage-current generator,

wherein said error amplifier comprises an input part, a load part, a noise suppression part, and a

phase compensation capacitor,

wherein said input part comprises a pair of first type semiconductor elements,

wherein said load part comprises a pair of second type semiconductor elements, and

wherein said noise suppression part (i) is disposed between said input part and said load part,

(ii) has an input connected to said first source terminal, and (iii) comprises a pair of the first type semiconductor elements of different dimension in length or width.

wherein:

~~a first input terminal of said error amplifier means is connected to said reference voltage generation means; a second input terminal of the error amplifier means is connected to said output voltage dividing means; said error amplifier means comprises an input part consisting of a pair of the 1-type semiconductor elements and a load part consisting of a pair of the 2-type semiconductor elements; a noise suppression part consisting of a pair of the 1-type semiconductor elements is disposed between said input part and said load part; one terminal of the noise suppression part is connected to said first source terminal; a substrate terminal of the noise suppression part is connected to said second source terminal; and a pair of components of the noise suppression part is fabricated in different dimension to control the source voltage dependency of the output voltage.~~

2. (currently amended) A noise canceling circuit according to Claim 1, further comprising:

~~a first source terminal;~~

~~a second source terminal;~~

~~a reference voltage generation means for generating a reference voltage;~~

~~a bias current generation means for generating a bias current determining an operating current;~~

~~an error amplifier means for amplifying an error voltage for said reference voltage, said error~~

~~amplifier means containing at least one phase compensation capacitor;~~

~~a voltage current output means for generating an output of a power circuit;~~

~~an output voltage dividing means for detecting a fluctuation of the output voltage; and~~

a canceling signal ~~generation means~~ generator containing ~~at least one~~ a capacitance different from said phase compensation capacitor,
wherein said capacitance is connected to (i) said output of said voltage-divider, and (ii) the first source terminal or a circuit node changing with a same phase as a voltage at the first source terminal.

wherein:

~~said capacitance is connected to said output voltage dividing circuit and the first source terminal or a circuit node changing with the same phase as the potential of the first source terminal; a first input terminal of said error amplifier means is connected to said reference voltage generation means; a second input terminal of the error amplifier means is connected to said output voltage dividing means; said canceling signal generation means voltage divides a noise signal by the capacitance and the resistance component of the output voltage dividing means, and advances the phase of the noise signal; said error amplifier means comprises an input part consisting of a pair of the 1-type semiconductor elements and a load part consisting of a pair of the 2-type semiconductor elements; a noise suppression part consisting of a pair of the 1-type semiconductor elements is disposed between said input part and said load part; one terminal of the noise suppression part is connected to said first power supply; and a pair of components of the noise suppression part is fabricated in different dimension to control the source voltage dependency of the output voltage.~~

3. (canceled)

4. (canceled)

5. (canceled)

Please add the following claims, newly numbered as claims 6 and 7.

6. (new) A noise canceling circuit, comprising:

a first source terminal;

a second source terminal;

an output terminal;

a reference voltage generator for generating a reference voltage and generating a bias current determining an operating current, having an input connected to said first source terminal, an input connected to said second source terminal, and a reference voltage output;

a voltage-current generator for generating an output of a power circuit, having a first input connected to said first source terminal, a second input, and an output connected to said output terminal;

a voltage divider for detecting a fluctuation of an output voltage at the output terminal, having an input connected to said second source terminal, an input connected to said output terminal, and an output; and

an error amplifier for amplifying an error voltage between said reference voltage and an output voltage from said output of said voltage divider, having an input connected to said first source terminal, an input connected to said second source terminal, an input connected to said reference voltage output, an input connected to said output of said voltage divider, and an output connected to said second input of said voltage-current generator,

wherein said error amplifier comprises an input part, a load part, a noise suppression part, and a phase compensation capacitor,

wherein said input part comprises a pair of first type semiconductor elements,

wherein said load part comprises a pair of second type semiconductor elements, and

wherein said noise suppression part (i) is disposed between said input part and said load part, (ii) has an input connected to said first source terminal, and (iii) comprises a pair of the first type semiconductor elements of different dimension in length or width.

7. (new) A noise canceling circuit according to Claim 1, further comprising:

a canceling signal generator containing a capacitance different from said phase compensation capacitor,

wherein said capacitance is connected to (i) said output of said voltage-divider, and (ii) the first source terminal or a circuit node changing with a same phase as a voltage at the first source terminal.